## CLAIM AMENDMENTS

1. (currently amended) A sample holding substrate for use with an infrared spectrophotometer or infrared filtometer that analyzes a sample through which infrared light is transmitted comprising an infrared light transmitting sample supporting window allowing infrared light to pass therethrough without substantial absorption of infrared light within a substantial portion of the infrared spectral range, said substrate being formed by one or more of the steps comprising cleaving, fly cutting, chipping, milling, sawing or scaling and wherein said substrate has not been precision optically polished.

2. (currently amended) The sample holding substrate as defined in claim 1 wherein the infrared light transmitting sample suporting window is mounted in a holder with at least one clear aperture such that the perimeter of the aperture frames all or a centrally located part of said window to form an unimepeded path for infrared light to pass through the at least one clear aperture and the window.

Claims 3-9. (canceled)

10. (previously presented) The sample holding substrate as defined in claim 1 wherein said infrared light transmitting sample supporting window is an alkali halide crystal.

11. (previously presented) The sample holding substrate as defined in claim 1 wherein said infrared light transmitting sample supporting window is an alkali halide crystal selected from the group consisting of KBr, NaCl and KCl.

12. (previously presented) The sample holding substrate as defined in claim 1 wherein said infrared light transmitting sample supporting window is comprised of a silica material.

13. (previously presented) The sample holding substrate as defined in claim 1 wherein said infrared light transmitting sample supporting window is comprised of a glass composition of germanium, arsenic and selenium.

14. (previously presented) The sample holding substrate as defined in claim 1 wherein said infrared light transmitting sample supporting window is comprised of a glass composition of germanium, antimony and selenium.

15. (previously presentred) The sample holding substrate as defined in claim 2 further having an infrared light transmitting cover slide window formed by one or more of the steps comprising cleaving, fly cutting, chipping, milling, sawing or scaling.

16. (previously presented) The sample holding substrate as defined in claim 15 wherein a spacer is located between said sample supporting window and said cover slide window to create a predetermined space therebetween.

17. (previously presented) The sample holding substrate as defined in claim 15 wherein said cover slide window is affixed to said sample supporting window by a clamping means.

18. (currently amended) A method for the manufacture of a sample holding substrate for use in an infrared spectrophotometer or infrared filtometer, said method comprising the steps of:

providing an infrared light transmitting material,

forming an infrared light transmitting sample supporting window <u>having infrared light transmissive surfaces that do not substantially absorb infrared light within a substantial portion of the infrared spectral range</u> by cleaving, fly cutting, chipping, milling, sawing or scaling material from said infrared light transmitting material <u>without precision optical polishing of the infrared light transmissive surfaces</u> to form a sample supporting window that allows the passage of infrared light therethrough.

19. (previously presented) A method for the manufacture of a sample holding substrate as defined in claim 20 wherein said step of providing a holder comprises providing a disposable holder or demountable holder.

20. (previously presented) A method for the manufacture of a sample holding substrate as defined in claim 18 further including the steps of:

providing a holder having at least one aperture formed therein, said holder being formed so as to be capable of orienting the sample holding substrate in the path of the infrared light transmitted by an infrared spectrophotometer or filtometer, and

mounting the sample supporting window to the holder in a position wherein all or a centrally located part of the window is framed by the perimeter of said at least one aperture.

Claims 21-27. (canceled)

28. (previously presented) A method for the manufacture of a sample holding substrate as defined in claim 18 further including the step of affixing a cover slide window to the sample holding card to provide a means of sandwiching a sample between said cover slide window and said sample supporting window.

29. (canceled)

30. (currently amended) A method for using a sample holding substrate in an infrared spectrophotometer or infrared filtometer having an infrared light source and an infrared light detector, said method comprising the steps of:

providing an infrared light transmitting material,

providing an infrared light transmitting sample supporting window having infrared light transmissive surfaces that do not substantially absorb infrared light within a substantial portion of the infrared spectral range formed by cleaving, fly cutting, chipping, milling, sawing or scaling the window from said infrared light transmitting material without precision optical polishing of the infrared light transmissive surfaces,

providing a holder having at least one aperture adapted to fit within the spectrophotometer or filtometer, said holder being formed so as to be capable of orienting the sample holding substrate in the path of the infrared light emitted by an infrared spectrophotometer or filtometer,

mounting the sample supporting window to the holder in a position where all or a centrally located part of the window is framed by the perimeter of the at least one aperture,

placing a sample to be analyzed onto the sample supporting window,

inserting the holder into the spectrophotometer or filtometer between the infrared light source and the infrared light detector with the at least one aperture aligned with the infrared light emitted by the infrared light source to allow the passage of a beam of infrared light ~~energy~~ though the sample, the window and the aperture.

31. (original) A method as defined in claim 30 wherein said step of providing a holder comprises providing a holder made of a disposable material.

32. (previously presented) A method as defined in claim 31 wherein said step of providing an infrared light transmitting material comprises providing an alkali halide crystal material.

33. (previously presented) A method as defined in claim 32 wherein said step of providing an infrared light transmitting material comprises providing a material selected from the group consisting of KBr, NaCl and KCl

34. (canceled)

35. (currently amended) A method as defined in claim 31 wherein said step of providing a holder further comprises the step of affixing an infrared light transmitting cover slide window having infrared light transmissive surfaces to the sample supporting window ~~holder~~ to form a means of sandwiching a sample between said infrared light transmitting cover slide window and said sample supporting window, said cover slide window being formed by

one or more of the steps comprising cleaving, fly cutting, chipping, milling, sawing or scaling without precision optical polishing of the infrared light transmissive surfaces .

36. (original) A method as defined in claim 35 wherein said step of placing a sample to be analyzed comprises sandwiching the sample between the cover slide window and the sample supporting window.

37. (original) A method as defined in claim 36 wherein said step placing a sample comprises placing a bacterial colony between said cover slide window and said sample supporting window.

38. (canceled)

39. (currently amended) A method for using a sample holding substrate ~~an infrared light transmitting sample holder~~ for use in an infrared spectrophotometer or infrared filtometer having an infrared light source and an infrared light detector, said method comprising the steps of:

providing a holder having a plurality of apertures adapted to fit within said infrared spectrophotometer or infrared filtometer, said holder being formed so as to be capable of orienting the sample holding substrate in the path of the infrared light emitted by an infrared spectrophotometer or filtometer,

providing an infrared light transmitting material,

forming a plurality of infrared light transmitting sample supporting windows having infrared light transmissive surfaces that do not substantially absorb infrared light within a substantial portion of the infrared spectral range by cleaving, fly cutting, chipping, milling, sawing or scaling windows from said light transmitting material without precision optical polishing of the infrared light transmissive surfaces ,

mounting one of said plurality of said sample supporting windows to the holder in a position wherein all or a centrally located part of one of said sample supporting windows is framed by the perimeter of at least one of the apertures,

placing a sample to be analyzed onto at least one of the sample supporting windows,

inserting the holder having the substrate mounted thereto into said infrared spectrophotometer or infrared filtometer between the infrared light source and the infrared light detector with the at least one aperture aligned with the infrared light emitted by the infrared light source to allow the passage of a beam of infrared light ~~energy~~ though one or more samples, windows and apertures .

40. (previously presented) A method for using a sample holding substrate as defined in claim 39 wherein said step of forming a plurality of apertures and sample supporting windows mounted thereon comprises forming the plurality of apertures and sample supporting windows in a carousel configuration.

41. (currently amended) A method for using a sample holding substrate as defined in claim 40 wherein said step of placing a sample to be analyzed comprises placing a plurality of samples onto said plurality of sample supporting windows and said infrared spectrophotometer or infrared filtometer passes infrared light ~~energy~~ sequentially through said plurality of samples, said windows and said apertures .

42. (previously presented) A method for using a sample holding substrate as defined in claim 40 wherein said step of placing a sample onto at least one of the sample supporting windows comprises placing a bacterial colony onto said at least one sample supporting window.

43. (currently amended) A method for using a sample holding substrate as defined in claim 40 wherein said step of inserting the holder having the substrate mounted thereto into the infrared spectrophotometer or infrared filtometer comprises inserting the holder in a horizontal position within the infrared spectrophotometer or infrared filtometer and passing a beam of infrared light ~~energy~~ at least once through the sample, the window and the aperture.

44. (previously presented) A method for using a sample holding substrate as defined in claim 43 wherein the beam of infrared light ~~energy~~ is passed at least once through the sample by means of reflection.

45. (currently amended) A method for using a sample holding substrate for use in an infrared spectrophotometer or infrared filtometer having an infrared light source and an infrared light detector, said method comprising the steps of:

providing a plurality of holders, each having at least one aperture, each of said holders being formed so as to be capable of orienting the sample holding substrate in the path of the infrared light emitted by an infrared spectrophotometer or filtometer

providing an infrared light transmitting material,

forming a plurality of infrared light transmitting sample supporting windows having infrared light transmissive surfaces that do not substantially absorb infrared light within a substantial portion of the infrared spectral range by cleaving, fly cutting, chipping, milling, sawing or scaling windows from said infrared light transmitting material without precision optical polishing of the infrared light transmissive surfaces,

mounting one of said plurality of sample supporting windows to each of said plurality of holders in a position wherein all or a centrally located part of said sample supporting windows is framed by the perimeter of the apertures,

providing a mechanical carousel adapted to fit into the infrared spectrophotometer or infrared filtometer,

mounting said plurality of holders onto the mechanical carousel,

placing a sample to be analyzed onto at least one of the sample supporting windows,

inserting the carousel into the infrared spectrophotometer or infrared filtometer between the infrared light source and the infrared light detector with the at least one apertures aligned with the infrared light emitted by the infrared light source to allow the passage of a beam of infrared light ~~energy~~ in a sequential manner through the plurality of sample supporting windows, said samples and said apertures.

46. (currently amended) A method for using a sample holding substrate in an infrared spectrophotometer or infrared filtometer having an infrared light source and an infrared light detector, said method comprising the steps of:

providing an infrared light transmitting material,

providing a sample supporting window having infrared light transmissive surfaces that do not substantially absorb infrared light within a substantial portion of the infrared spectral range formed by cleaving, fly cutting, chipping, milling, sawing or scaling the sample supporting window from said infrared light transmitting material without precision optical polishing of the infrared light transmissive surfaces,

providing a holder having at least one aperture adapted to fit within the infrared spectrophotometer or infrared filtometer, said holder being formed so as to be capable of orienting the sample holding substrate in the path of the infrared light emitted by an infrared spectrophotometer or filtometer,

mounting the sample supporting window to the holder in a position wherein all or a centrally located part of the sample supporting window is framed by the perimeter of the at least one aperture,

inserting the holder into the infrared spectrophotometer or infrared filtometer to allow the passage of a beam of infrared light ~~energy~~ though the sample supporting window to obtain one or more ~~a~~ background scans of the absorbance of the sample supporting window,

placing a sample to be analyzed onto the sample supporting window,

inserting the holder into the ~~analytical instrument~~ infrared spectrophotometer or infrared filtometer between the infrared light source and the infrared light detector with the at least one aperture aligned with the infrared light emitted by the infrared light source to allow the passage of a beam of infrared light ~~energy~~ though the sample suporting window and the sample located thereon to obtain a scan of the absorbance of the sample and the sample supporting window, and,

using the one or more background scans to subtract the background absorbance of the sample supporting window without the sample from the absorbance of the sample and the sample supporting window.

47. (currently amended) A method for using a sample holding substrate in an infrared spectrophotometer or infrared filtometer having an infrared light source and an infrared light detector, said method comprising the steps of:

providing an infrared light transmitting material,

providing an infrared sample supporting window having infrared light transmissive surfaces that do not substantially absorb infrared light within a substantial portion of the infrared spectral range formed by cleaving, fly cutting, chipping, milling, sawing or scaling the sample supporting window from said infrared light transmitting material without precision optical polishing of the infrared light transmissive surfaces,

providing a holder having at least one aperture adapted to fit within the infrared spectrophotometer or infrared filtometer, said holder being formed so as to be capable of orienting the sample holding substrate in the path of the infrared light emitted by the infrared spectrophotometer or filtometer,

mounting the sample supporting window to the holder in a position wherein all or a centrally located part of the sample supporting window is framed by the perimeter of the at least one aperture,

placing a medium onto the sample supporting window with which a sample will be mixed,

inserting the holder into the infrared spectrophotometer or infrared filtometer to allow the passage of a beam of infrared light ~~energy~~ though the medium and the sample supporting window to obtain one or more a background scans of the sample supporting window and the medium,

placing a sample to be analyzed mixed with the medium onto the sample supporting window,

inserting the holder into the infrared spectrophotometer or infrared filtometer analytical instrument between the infrared light source and the infrared light detector with the at least one aperture aligned with the infrared light emitted by the infrared light source to allow the passage of a beam of infrared light ~~energy~~ though the sample supporting window and the medium mixed with the sample and,

using the one or more background scans to subtract the absorbances of the medium and the sample supporting window from the absorbances of the medium, the sample supporting window and the sample.

48. (previously presented) A method of using a sample holding substrate as defined in claim 47 wherein said step of placing a medium onto the sample supporting window

with which the sample will be mixed comprises placing an alkali halide crystal powder on the sample supporting window.

49. (previously presented) A method of using a sample holding substrate as defined in claim 48 wherein said step of placing a medium onto the sample supporting window with which the sample will be mixed comprises placing KBr powder on the sample supporting window.

50. (previously presented) A method of using a sample holding substrate as defined in claim 47 wherein said step of placing a medium onto the sample supporting window with which the sample will be mixed comprises placing mineral oil on the sample supporting window.

51. (previously presented) A method of using a sample holding substrate as defined in claim 47 wherein said step of placing a medium onto the sample supporting window with which the sample will be mixed comprises placing a solvent on the sample supporting window.

52. (previously presented) A method of using a sample holding substrate as defined in claim 47 wherein said step of placing a medium onto the sample supporting window with which the sample will be mixed comprises placing a mixture of KBr powder and a solvent or a mineral oil on the sample supporting window.

53. (new) A method for using a sample holding substrate in an infrared spectrophotometer or infrared filtometer having an infrared light source and an infrared light detector, said method comprising the steps of:

providing an infrared light transmitting material,

providing an infrared light transmitting sample supporting window having infrared light transmissive surfaces that do not substantially absorb infrared light within a substantial portion of the infrared spectral range formed by cleaving, fly cutting, chipping, milling, sawing or

scaling the window from said infrared light transmitting material without precision optical polishing of the infrared light transmissive surfaces,

providing a holder having at least one aperture adapted to fit within the spectrophotometer or filtometer, said holder being formed so as to be capable of orienting the sample holding substrate in the path of the infrared light emitted by an infrared spectrophotometer or filtometer,

mounting the sample supporting window to the holder in a position where all or a centrally located part of the window is framed by the perimeter of the at least one aperture,

placing a bacterial colony to be analyzed onto the sample supporting window,

inserting the holder into the spectrophotometer or filtometer between the infrared light source and the infrared light detector with the at least one aperture aligned with the infrared light emitted by the infrared light source to allow the passage of a beam of infrared light ~~energy~~ though the bacterial colony, the window and the aperture.